

Name _____ Date _____ Period _____

F = MA Worksheet
Also: **m = F/a** and **a = F/m**

1. How much force is required to accelerate a 2 kg mass at 3 m/s²?
2. Given a total force of 100 N and an acceleration of 10 m/s², what is the mass?
3. What is the acceleration of a 10 kg mass pushed by a 5 N force?
4. Given a force of 88 N and an acceleration of 4 m/s², what is the mass?
5. How much force is required to accelerate a 12 kg mass at 5 m/s² ?
6. Given a force of 10 N and an acceleration of 5 m/s², what is the mass?
7. How much force is required to accelerate a 5 kg mass at 20 m/s² ?
8. What is the acceleration of a 5 kg mass pushed by 10 N of force?
9. Given a force of 56 N and an acceleration of 7 m/s², what is the mass?
10. How much force is required to accelerate an 8 kg mass at 5 m/s² ?
11. What is the acceleration of a 24 kg mass pushed by a 6 N force?

12. What is the acceleration of a 25 kg mass pushed by a 10 N force?

13. Given a force of 100 N and an acceleration of 5 m/s^2 , what is the mass?

14. How much force is required to accelerate a 50 kg mass at 2 m/s^2 ?

15. What is the acceleration of an 18 kg mass pushed by a 9 N force?

16. Find the acceleration of the 2 kg block in the following diagram.



17. Find the acceleration of the 1 kg block in the following diagram.

